Meeting Description: Michigan Geographic Framework Users Meeting
Date: January 8, 2004   **Time:** 10:00 a.m.
Location: Michigan Center for Geographic Information, George W. Romney Building, 10th Floor, Conference Room

I. Approval of November Meeting Minutes

II. Geographic Framework Program
    A. Next Steps
        • Act 51 Mapping

Everett Root, Center for Geographic Information (CGI), reported CGI is creating township maps that go to the counties. There are 35-40 counties complete and 15 in process. CGI plans to deliver via CD and PDF. Have a program that makes an auto-run CD. Instead of having to print all the maps, will put 3,000 PDFs on 83 CDs. CGI will offer to print if that is preferred. The CDs will go to the County Road Commissions. Michigan Department of Transportation (MDOT) is going to put in the instructions what they want to see. There is documentation needed to delete a road. If CGI made an error there will be several ways that can be communicated to CGI – faxes, e-mails, phone calls.

    B. Digital Ortho Update

Everett Root, CGI, reported the photos for the Lower Peninsula area that did not have color infrared coverage for 1992 have started to arrive. The northern Lower Peninsula had several counties. This also includes portions of the city of Lansing. The photos will be reprojected at CGI, turned into MrSIDs, and will be on the CGI web site on a flow basis. They will be put in the 'What's New' section of the CGI web page. MrSIDs can be downloaded from the geographic data library.

    C. Framework Network Pilot Partnerships Update
        • Qualified Voter File (QVF) Street Index to the Map Project

Rob Surber, CGI, reported that CGI wants to introduce a new project that involves the Census Bureau. An agreement between the Michigan Department of Education (MDOE) and CGI to complete revision of the school district layer on framework is all but signed. The Census Bureau will need to generate new population numbers for Chapter One and a number of programs that come out of Washington to support education. That is rolling this spring. The MDOE wants to participate and CGI will serve as technical lead to see the data is integrated then passed on to the Census Bureau. The other purpose is in support of the Qualified Voter File (QVF) integration with the framework in support of voter registration. This file will drive all school elections and this file will also assign school district voter registration. The agreement is to provide an online access tool for all school districts to adjust their school district boundaries using the current framework boundaries. CGI is creating a complete seamless set of digital Rockford maps that are georeferenced as a complete statewide product. There are various conditions of currency within the Rockford map products. CGI felt that is the best they can do now to provide a backdrop to determine if correct. This will provide a consistent tool that will go out to all schools districts in the state. There will be a review period at the state for integration into framework. The school districts will do red lining on the Internet and CGI will incorporate this into framework. The Census Bureau needs the end product by May.

Jeroen Wagendorp, Allegan County GIS, asked how much local fine-tuning is needed. There are anomalies that disappear and reappear and will not be able to catch that. The county has a string of a dozen parcels in the middle Gunn Plane school district that go to Delta Kellogg.

Rob Surber, CGI, responded they should be in there. That is legitimate boundaries that they should be a part of. Some islands were captured in the 1990s.

Jeroen Wagendorp, Allegan County GIS, added when they generate a school district map based on tax code this instant, would CGI want that and then school districts don't have to worry about it any more.

Rob Surber, CGI, responded that is why it is under the Framework Network Partnerships. If a community already has it in a form that CGI can work with in geographic information system (GIS), CGI wants to talk to the community about potentially using it. But there are areas in the state that do not have that capability.

Jeroen Wagendorp, Allegan County GIS, commented they have done inventory and found that 70-80% of all parcels are mapped. Therefore, they are attributed with the school district code. It is just finding the people that control that.

Rob Surber, CGI, added some counties have different policies. CGI may have to get the school districts involved by asking them to send information to CGI. It will have a lot of implications for funding to school districts.

Jeroen Wagendorp, Allegan County GIS, asked if this is going to impact the new voting rules where school elections are being transferred to the township level.

Rob Surber, CGI, responded that it will in the sense that QVF will be the program that supports that change and this will drive the QVF information.

Joyce Newell, Michigan Department of Transportation (MDOT), asked if there is a way to check if 2 school districts give conflicting information.

Rob Surber, CGI, responded that is part of the quality control. Inside an Intermediate School Districts (ISD), the boundaries are fairly good because communicate a lot. The ISD is in-between the state education and the local school districts and provide technical and support to the districts. Between ISDs there is not as much communication and CGI gets a lot of conflicts. If CGI doesn't get clean boundaries, CGI will have to do research and follow up.

Dan Dillinger, Tri-County Region Planning Commission (RPC), asked if there is an opportunity for regions to participate. They had a rough time getting the Lansing school district boundaries that were outside the city boundaries for the last election. The city was fine, but Clinton County, Eaton County, and Lansing Township there was no clear definition. Dan came to CGI for QVF information to see it. Even the election officials didn't have it.

Rob Surber, CGI, responded this is one reason why this is being done. Even QVF has problems. The school elections are not reviewed as much. If you show up for a school election and are not on the list, you can sign an affidavit saying that you should be voting there. At that point it kicks in a process to say what is wrong with the file and then CGI gets involved. There are hidden errors. The hope is that the GIS offices can provide a lot of this information if they are mapping schools by parcels. Suggested that Dan talk to CGI after the meeting to see if they can set something up. CGI will need as many people as possible to participate to make this work. The Census Bureau is on a tight timeframe. The goal is to set tools on the Internet that can be used other ways for feedback and communicating changes and updates. Absent a GIS office, that would be a way they could contribute to framework maintenance. The Rockford map license only allows display of quarter of a township or less. It is probably just as well because you cannot see parcels until you zoom in.

Everett Root, CGI, added it will be a password protected access site. Will get contacts from the school superintendents.

Jeroen Wagendorp, Allegan County GIS, asked if Rockford had statewide coverage.

Rob Surber, CGI, responded yes, but if a county may not have updated it because they may have an older vintage. CGI could not get a complete current digital coverage of Rockford-like maps. Rockford may be interested in a seamless version of their product. This is important not

only for this program, but a lot of state government agencies use properties as a part of their program. CGI is georeferencing and stitching together on the seams. This is being done in ERDAS.

- United States Postal Services (USPS) Partnership Update

Rob Surber, CGI, reported that there is a USPS stakeholder meeting January 29, 2004 from 9:30-12 at CGI. The purpose is to get the USPS together and start working on what their needs are. Through CGI's Internet application, they will develop a communication tool to get street names standardization and get them communicating with each other and with the state. Hope to get a set of goals with specifications and then will bring together an external stakeholders group and get them to start talking to USPS and come up with comprehensive requirements. It will involve same tools as the school district project. Hope to get anyone from group involved in the meeting after this. All 4 districts and conference calls from Memphis and Wisconsin will be part of meeting. USPS is looking at this as a possible pilot for the rest of the nation.

D. Rail Update

Everett Root, CGI, reported the Version 3 rail layer and repositioned it to digital ortho photos and using information from the MDOT and Michigan Rail Association they were able to identify the active rail in the state, created an official rail map, and will distribute it. Now that they identified active rail and repositioned it, CGI will communicate with rail owners. This was presented to the Michigan Rail Association's annual meeting. There were 8-10 representatives and they were interested. CGI will create cartographic products to send to them for their review. To identify active rail lines point-to-point is easy. When you get into communities where the rail stops or changes, you need to define accuracy. Will ask where ownership changes and whether single track or double track. This project went well and cleaned up rail that was in framework. CGI left all rail features that are inactive and tagged them. The Rail-to-Trails folks are looking at those and identifying as Rails-to-Trails. CGI made cartographic maps for them for regional review. The inactive layer is available to those interested in turning Rails-to-Trails. It will be in Version 4. CGI did not reposition inactive unless part of Rail-to-Trail system. If it cannot be seen on photo it must be old.

Rob Surber, CGI, stated that there are historical folks who like to know where those old rails were.

Dan Dillinger, Tri-County RPC, asked if CGI is planning to add any. He came up with the pipeline that is going through Lansing as an alternate route, one that is an old rail line not in framework but on old USGS maps. Tri-County RPC digitized the line from ortho quarter quads. The theory is that the bed even though it may go through wetland areas by definition it is not a wetland along the bed because it is raised. There are applications other than the historical.

Joyce Newell, MDOT, said MDOT discussed digging up older official rail maps and scanning them to make JPEGs and make them available on the web. Then people can see there was once a rail and they can look for more evidence beyond that. The Rails-to-Trails people want to see where the rails used to be. History people want to see what is feasible to do with the property.

Everett Root, CGI, stated the next step will to get the topology accurate and put PR numbers and mile points on so the linear referencing will work. Every rail crossing in the country has unique values called the National Inventory (NI) number. CGI did a pilot county and tagged with NI numbers. There is a lot of data tied to those and CGI will probably add that over the next year into the framework attribute in the NAT part of the coverage. There will be no data associated with it - it will only be a number. MDOT has databases they can link to that.

Rob Surber, CGI, said Homeland Security groups may be interested in rail crossing databases for public safety issues, school bus crossings, emergency vehicle routing, etc.

E. National Hydro Layer (NHD) Layer

Rob Surber, CGI, reported there may be a potential NHD project this early year. The plan is to begin working the SE Michigan area. Want to tie into the needs of the Homeland Security group.

III. Michigan Department of Natural Resources (MDNR) Projects and Activities

Rob Surber, CGI, reported on the group called VIGIL (Virtual Geographic Information Laboratory) Committee. It is a way that the MDNR program areas and divisions can prioritize and set schedules for projects made up of the divisions (Fisheries, Parks and Recreation, Law, Forest Land and Mineral, Wildlife). MDNR will drive this and CGI will sit on the committee. January will be first meeting.

IV. Michigan Department of Transportation (MDOT) Projects and Activities

Joyce Newell, MDOT, reported they hope to get federal forest roads to get into Version 5. There will be issues whether they are federal forest roads or certified by the county. Will have to work out with federal highways.

Cory Johnson, MDOT, reported the Aesthetics Opportunity File is posted on the Internet with a description with a link to Map Michigan for reference. Aesthetics is a number of different types of projects that are identified. There are aesthetic opportunity projects available across the state for state highway improvements that aim to make our state highways more aesthetically pleasing. It is funding opportunities for locals. Also reported that Michigan State Industries (MSI) continues to work on the drain project. They are estimating time. Currently they are working with Saginaw County. MSI is doing a sampling with different counties to estimate time, effort, and cost. MSI continues to scan TIF images and approximately 40% of the Right-of-Ways (which have always been in book format) have been scanned with the hope to eventually put them on the Internet primarily for internal use. These are being georeferenced. SDE and IMS require a cell size be assigned to every image.

Joyce Newell, MDOT, reported the Asset Management data collection has been collected and the repository for the data is CGI, but the locals own it. The data must be requested from the data owners. Transportation Asset Mapping System (TRAMS) is an effort that the Regions and Transportation Service Centers (TSC) initiated. They want to make maps showing transportation data without knowing GIS. This will result in an Internet application. CGI will be helping to pull together MDOT's major databases and serve on a website.

Rob Surber, CGI, added that there will also be highly demanded canned maps that will be refreshed and regenerated on a schedule that will keep them current. 21,000 are all automated.

Joyce Newell, MDOT, stated that the Region and TSC folks only want to see within their boundaries.

Rob Surber, CGI, commented that CGI's goal is to have an automated map production process that will run over night.

Joyce Newell, MDOT, said that would satisfy 80-90% of the map needs for Regions and TSCs. This will be potentially available to the public.

Cory Johnson, MDOT, commented that the Asset Management data collection was presented to the council yesterday.

Joyce Newell, MDOT, stated that MDOT will be collecting again this summer and will do so for 3 years running to see the changes over time. The bill stated they would start with the Federal Aid eligible roads and eventually do all certified roads in Michigan.

V. Michigan Department of Environmental Quality (MDEQ) Projects and Activities
    Rob Surber, CGI, reported that CGI continues with the migration of MDEQ's Internet mapping applications. Mainly you will see more reliability.

VI. Michigan State Police (MSP) Projects and Activities
    Nobody in attendance.

VII. Michigan State Industries (MSI) Projects and Activities
    Nobody in attendance.

VIII. CGI Projects and Activities
    Rob Surber, CGI, nothing new to report.

IX. MSU Remote Sensing and GIS Research and Outreach Services Projects and Activities
    Bill Enslin, MSU, reported they added new functionality to the Map Image Viewer last year and they are now documenting what they did. The emphasis is to catch up on the health file. There are 2 projects that are kicking off that are being funded by MDEQ. One is the Coastal Zone Management, which is an application for GIS for decision support for critical dune management. Two test townships from Berrien and Ottawa Counties will be involved in the study. Allegan County may possibly be included. The key factors are Berrien was selected because have light detection and ranging system (LIDAR) data and soils is very important in dune management so MSU will be building tools to access soil properties and limitation tables and then slope and vegetation are important decisions in that too. A larger project is with the MDNR, Water Division, and relates to Public Act 148 for ground water inventory and mapping. This is to develop a new depth to ground water map. Dave Lusch, MSU, is wrapping up several years of developing a depth to ground water map for previous activities. The project involves not only Remote Sensing GIS group but also the Institute for Water Research for the educational component and the United States Geological Survey (USGS) for the scientific underpinnings. It is a statewide effort. A lot of the initial work will be done in Kalamazoo County because they have good ground water modeling and other GIS activities in that area. We have a history of working with the Kalamazoo County Health Department. The initial project is supposed to be 2 years but is actually 18 months and it is just starting this month. The reason for act is the withdrawal of Perrier and the agricultural irrigators. Part of the study is to define the criteria to determine depth to ground water. The statewide approach is going to be the first ghost filter and the on-site tools analysis would have to be performed. It will define areas susceptible to withdrawal. The water well records must be scrubbed before use.
    Jeroen Wagendorp, Allegan County GIS, commented that instead of identifying aquifers, MSU will monitor what is happening to the depth to ground water.
    Bill Enslin, MSU, responded that there will not be monitoring at this point.
    Rob Surber, CGI, added that was his question was in terms of the ongoing maintenance. He didn't recall any specifics about that in the law.
    Jeroen Wagendorp, Allegan County GIS, stated to identify all aquifers is one thing but to see how quickly they are recharged is another. The work done in the greater Lansing area was complex.
    Bill Enslin, MSU, stated that some of the things done by Western Michigan University will be revisited in the new effort. Some new tools will be developed to use that data on a case-by-case basis for filtering into the local environment prior to more sophisticated in-field investigations.

X. County / Local Projects and Activities

Jeroen Wagendorp, Allegan County GIS, reported they are working on a Barry, Allegan, and Ottawa ortho adventure that has been awarded to Wolpert. They got 100% buy-in from all local units of government and they are subsidizing at $85 per square mile. The counties are subsidizing with surface data they had. So it is a 50-50 split in that context. 6-inch pixels is overkill in many ways, the clarity is there to use.

Rob Surber, CGI, added that this tends toward the way that SEMCOG is pulling together resources for a multi-county area. On the western side of the state, the counties are not doing it from a regional planning agency like SEMCOG but. Who will handle the administrative duties?

Jeroen Wagendorp, Allegan County GIS, commented it will be broken up in 3 pieces. There is coordination by GIS at the county level. It will be 6-inch black and white. In Allegan County, the ortho calibration is 1-foot pixel. It is a good return on the investment. The townships will get their own set. With the Map Image Viewer they will get recent photography, along with the state layers, along with a couple of the county's layer and for township planners, assessors, and supervisors it becomes meaningful. It will be paid for over 2 years. For a typical township it will cost around $3,000 - $1,500 each year. There is no other way for the townships to get this good a product.

Rob Surber, CGI, said SEMCOG plans to get a 6-inch version, 1-foot version, and a 2-foot version. Are the southwest counties going to get just a 6-inch version?

Jeroen Wagendorp, Allegan County GIS, responded they are just 6-inch stuff. They are using the digital elevation model (DEM) product from a previous flight for Ottawa (might need serious arm-twisting of the previous vendor), Barry ((a local county surveyor bought MDOT first order Global Positioning System (GPS) equipment and he has 300-400 first order points xyz throughout county - will have to work with the county to make it available to tighten things up a little)). In a round about way they will get better stuff than what comes from USGS.

Dawn Siegel, Livingston County, reported they are finishing parcel mapping. They are updating road centerlines monthly. They trained the fire fighters and emergency vehicle drivers to use the GPS, so they got free labor. They have a magnetic mount and they take a vehicle, drive and bring back the data. Livingston County has finished their hydro model for the hydrology in the county. They are also finishing drawing legals for some county drains. They are now working on pilot drawing drains for a township for the drain commissioner. They are now receiving images of the 2003 update flight of 4 townships and are looking forward to the 2005 flight with SEMCOG to update the entire county.

Jeroen Wagendorp, Allegan County GIS, said they changed the color infrared from MSU and did a false color substitute and replaced the reds with greens. It was a nice exercise. Asked Dawn how many parcels they have done.

Dawn Siegel, Livingston County, responded they have 83,000 and have 70,000 in GIS now. They are doing all of the maintenance as they go along. Developers are still doing paper. There are a few who email CAD drawings. Livingston County has been working with a large engineering firm to identify a layering scheme that works the best for them.

Trevor Floyd, St. Clair County, reported that IMS and SDE were installed before Christmas. The performance increases if huge. ESRI installed and the SDE person hasn't seen a box that big and it was the first time the IMS person installed on dual-load bearing servers. The speed on rasters is phenomenal. It takes less time to load a county mosaic then it did to begin the request before. It is on servers and Information Technology (IT) controls the servers so nobody has the ability to create new data or touch the SDE data expect for one test application. There are

various levels of control of data and right now IT has complete access. There is only one SDE password and that is the loader password and only IT knows it. It will change. The IMS test web site has county parcel layer except for the city of Port Huron, 2000 SEMCOG photography, an almost complete mosaic of the 1937 photography (which has glitches because the borders were not clean), all the framework attributes, tools to allow to search parcels by tax pin number, a field to type in name of owner (but whatever you type in it places a wildcard after it and searches for it). The buffer tool is up and running. Everything is inside the firewall. They are in the testing phase of establishing inside connections and they are looking at if somebody has the ability the come in with a VPN that the county would set up the protocols for outside consultants or entities to VPN into the system. They had it up to 78% when loading 6 flight years of photography at once. Tom Ridge is coming tomorrow. The state wants to get involved. Just before Christmas the LICA representative came with a GPS receivers that works the core tower network. They are looking at having multiple agencies use equipment like that. Trevor explained to the board members that the core tower is half of the equation. They need to have the unit for the guy to use in the field. Now they must convince them to buy the GPS units so they can use core tower networks. They are looking at buying units for the equalization people to use. They came across 3 copies of 1859 parcels map. Trevor started to shoot it with his 5-mega pixel digital camera and is now referencing townships into GIS. Everything is registering really well. Seamless mosaic looks good of the county and will be able to pipe into IMS. It has all rail lines, house locations, community names, etc. When done they will have time flow of the county. They have a circa 1800 land use/cover, a 1859 and a 1937.

XI. Regional Planning and Activities

Dan Dillinger, Tri County Regional Planning Commission (RPC), reported they are working on the Regional Growth Project. They have new projects – Hazard Mitigation with the Michigan State Police (MSP). They purchased a high-end tremble unit for GPS. They are pleased with accuracy.

XII. Federal Projects and Activities

Charlie Hickman, United States Geological Survey (USGS), reported Rob Surber mentioned the National Hydro Dataset (NHD) funding and conflating was mentioned. USGS will get a foot up in Livingston, Wayne, and Oakland Counties. There was a Memorandum of Understanding (MOU) that Eric Swanson, Director CGI, and Charlie's boss signed. The USGS and the national map program will coordinate efforts with the Michigan Framework Program. It is an umbrella MOU so other things will fit under it. USGS has an online viewer that is OGC compliant and Michigan has lots of data that can hook in there.

Rob Surber, CGI, stated CGI is still having a software related projection problem. ESRI is working on it.

Charlie Hickman, USGS, commented the Defense Department the mapping agency which used to be called the National Imagery and Mapping Agency is now called the National Geo-Intelligence Agency (NGA). USGS fronts for them and they front for the Department of Homeland Security and other groups. Request that come from them to USGS include inventories of data for Michigan particularly urban areas, but other parts of the state for critical infrastructure. They are most recently interested in the Detroit area so USGS has been talking with SEMCOG. NGA wants vector and any lidar data. NGA flies their own lidars. The other parts of the state that NGS is interested in are Grand Rapids, Lansing, and Flint. There is hope for the 2005 SEMCOG ortho flights to get some NGA funding. There is no NGA funding in 2004 for any where in the country. They asked for it in their budget and didn't get it. They are going back for supplemental funding.

Rob Surber, CGI, mentioned the Ramona Project through National States Geographic Information Council (NSGIC). A lot of states and national programs are doing surveys as to what geo spatial data is out there and what activities are underway. It is a way for communities to know what is going on around them and share with others. The Geo Spatial One Stop Portal is going to be a center point for a new initiative by NSGIC to give survey tools to all communities and will be driven through the state NSGIC coordinators for one survey tool and a national one portal for discovery and posting process. NSGIC is the lead. Phase 1 is starting March-July; Phase 2 is from May-October. The first phase is a needs assessment analysis. CGI has always contended that there is a need for better coordination.   Maybe this will provide momentum that all be on the same page.

Gordon Rector, United States Bureau of the Census, reported the Census Bureau still doesn't have a budget. They are still working on the TIGER modernization efforts. About 65 Michigan counties will have gone through the TIGER repositioning effort by the end of the fiscal year (September 30). A lot of Michigan is getting done thanks to the framework files and several others. Several counties that have been repositioned will come out on the next release of TIGER line, which should come sometime later this winter.

Everett Root, CGI, added that several of them showed up on the school district maps. By looking at a freeway interchange, it is the best way to tell if framework was used.

Rob Surber, CGI, commented the significant relating to school and the census is that the Census Bureau headquarters agreed that even if a county has not been through the repositioning process to use current framework school district boundaries. Because they saw that was where it was going any way. This is an important decision so it doesn't have to done twice on the old TIGER and on current framework.

Everett Root, CGI, added another advantage is if a county replies there is no change, it is done.

Rob Surber, CGI, stated there is new legislation, House Bill 5065, is in the house and has been sent to the Education Sub-Committee to make it easier for property owners to switch school districts. It has implications for the geo spatial management of that data. Now they have to petition the Intermediate School District (ISD) to transfer. The ISD politically often depends on the sensitive nature. There is the Sylvan Lake area in Oakland County that has wanted out of the Pontiac school district for years. The ISD has not worked with them because of the nature of politics. If a community has more than one school district, it can transfer whole townships or subdivisions. Only the citizens who are transferring and school district they are moving to approve it. This has implications for the dynamic nature of school district. Obviously the per pupil revenue that comes in has implications both plus and minus for schools.

XIII. Other Issues
   A. Meeting Frequency
Rob Surber, CGI, there was discussion as to whether it would be more beneficial to meet every other month. After a discussion, the consensus was to meet monthly.   There were suggestions to flip the emphasis between the regional and county issues. There was also a suggestion to pipe into someone's PC or broadband. Then people can listen in. It will take away the sense the elite south part is running it all. Another suggestion is that perhaps quarterly have the focus be on the regional level and meet in their area.

Rob Surber, CGI, stated that CGI does not have a setup like that but they can look into it.

XIV.   Next Meeting Date
    February 5, 2004, 10 a.m. until 12 p.m., Michigan Center for Geographic Information, George W. Romney Building, 111 S. Capitol, 10th Floor, Lansing, MI 48913